*Radiotherapy and Oncology*, 21 (1991) 291–294
© 1991 Elsevier Science Publishers B.V. 0167-8140/91/$03.50


# CONTENTS OF VOLUME 21

*Number 1, May 1991*

Publisher's Announcements v

**Regular Papers**

Head and neck cancer and the radiation oncologist (The ESTRO Regaud Lecture)
*J.-P. Bataini (France)* 1

A proposed modification of the Ho stage-classification for nasopharyngeal carcinoma
*P. M. L. Teo, S. Y. Tsao, J. H. C. Ho and P. Yu (Hong Kong)* 11

Stage I–II carcinoma of the anterior two-thirds of the tongue treated with different modalities: a retrospective analysis of 244 patients
*Y. Akine, N. Tokita, T. Ogino, I. Tsukiyama, S. Egawa, M. Saikawa, W. Ohyama, T. Yoshizumi and S. Ebihara (Japan)* 24

Usefulness of $^{198}$Au grain implants in the treatment of oral and oropharyngeal cancer
*J. Horiuchi, M. Takeda, H. Shibuya, S. Matsumoto, M. Hoshina and S. Suzuki (Japan)* 29

Effect of dose rate on local control and complications in definitive irradiation of $T_{1-2}$ squamous cell carcinomas of mobile tongue and floor of mouth with interstitial iridium-192
*J. J. Mazeron, J. M. Simon, C. Le Péchoux, J. M. Crook, L. Grimard, P. Piedbois, J. P. Le Bourgeois and B. Pierquin (France)* 39

Follow-up by $^{31}$P NMR spectroscopy of the energy metabolism of malignant tumor in rats during treatment
*C. Allavena, J.-L. Guerquin-Kern and J.-M. Lhoste (France)* 48

Effects of feeder cells on the X-ray sensitivity of human colon cancer cells
*J. T. Leith, G. Padfield, L. E. Faulkner, P. Quinn and S. Michelson (U.S.A.)* 53

**Technical Notes**

A non-invasive, relocatable stereotactic frame for fractionated radiotherapy and multiple imaging
*J. D. Graham, A. P. Warrington, S. S. Gill and M. Brada (U.K.)* 60

An afterloading technique suitable for carcinomas of the oral cavity
*A. Beorchia, S. Fongione, G. Pizzi, R. Guglielmi, G. Mandoliti, M. Cereghini, T. Ceschia and G. Contento (Italy)* 63

**Short Communications**

High-dose rate intraluminal brachytherapy for bile duct carcinoma after surgery
*K. Kurisu, Y. Hishikawa, M. Taniguchi, N. Kamikonya, T. Miura, H. Kanno and E. Okamoto (Japan)* 65

Reversible CT findings of the liver after radiotherapy
*A. Gouliamos, G. Kotoulas, C. Giannopoulou, A. Kalovidouris and C. Papavasiliou (Greece)* 67

**Letter to the Editors**

Impact on survival of primary radiotherapy in locally advanced breast cancer tumor stages $T_{3/4}$, $N_{\pm}$, $M_0$
*G. Alth, H. Kolbabek and H. Rainier (Austria)* 69

**Meeting Agenda** 70

**Courses** 70

**Announcements** 72

*Number 2, June 1991*

Publisher's Announcement iii

ESTRO-Varian Clinical Research Awards 1991 v

**Editorial**
The need for prospective clinical studies in thymomas
*D. González González (The Netherlands)* 75

**Regular Papers**
Post-operative radiotherapy in invasive thymoma
*M. A. Jackson and D. L. Ball (Australia)* 77

A radiotherapeutic experience for localized extranodal non-Hodgkin's lymphoma: prognostic factors and re-evaluation of treatment modality
*K. Tsutsui, Y. Shibamoto, H. Yamabe, N. Shima, Y. Dodo, K. Ono and M. Abe (Japan)* 83

The curability of tumours of differing size by targeted radiotherapy using $^{131}I$ or $^{90}Y$
*T. E. Wheldon, J. A. O'Donoghue, A. Barrett and A. S. Michalowski (U.K.)* 91

Stage I-II squamous cell carcinoma of the oral cavity treated by iridium-192: is elective neck dissection indicated?
*P. Piedbois, J.-J. Mazeron, E. Haddad, A. Coste, M. Martin, C. Levy, M. Raynal, J. M. Palovitch, R. Peynegre, B. Pierquin and J. P. Le Bourgeois (France)* 100

High-dose-rate intraluminal brachytherapy for esophageal cancer: 10 years experience in Hyogo College of Medicine
*Y. Hishikawa, K. Kurisu, M. Taniguchi, N. Kamikonya and T. Miura (Japan)* 107

Intraoperative brachytherapy alone for incomplete resected recurrent rectal cancer
*B. D. Minsky, A. M. Cohen, D. Fass, W. E. Enker, E. Sigurdson and L. Harrison (U.S.A.)* 115

Radiation therapy in extrahepatic bile duct carcinoma
*M. Mahe, P. Romestaing, B. Talon, J. M. Ardiet, N. Salerno, I. Sentenac and J. P. Gerard (France)* 121

Analytic representation of the backscatter correction factor at the exit of high energy photon beams
*K. Kappas and J. C. Rosenwald (France)* 128

Total perturbation correction factor for PTW and NACP plane parallel chambers in electron beams
*C. Cimos, M. C. Lizuain and M. I. Febrian (Spain)* 135

**Short Communication**
Preoperative irradiation for tethered rectal carcinoma
*C. G. Willett, P. C. Shellito, G. V. Rodkey and W. C. Wood (U.S.A.)* 141

**Letters to the Editors**
LQ and time model
*R. J. Yaes (U.S.A.)* 143

Superficial irradiation for Paget's disease of the nipple
*A. D. Stockdale and J. D. Brierley (U.K.)* 144

ESTRO Teaching Courses 1991 145

**Announcements** 146

*Number 3, July 1991*

**Original Papers**
Cyclophosphamide 24 hours before or after total body irradiation: effects on lung and bone marrow
*R. Yan, L. J. Peters and E. L. Travis (U.S.A.)* 149

Local tissue air ratio in an anatomic phantom for $^{60}Co$ total body irradition
*M. Vrtar and A. Purišić (Yugoslavia)* 157

Dose fractionation and tumour repopulation in radiotherapy for bladder cancer
*B. Maciejewski and S. Majewski (Poland)* 163

Fractionated thermochemotherapy in vivo of a C3H mouse mammary carcinoma 171
*O. R. Monge and E. K. Rofstad (Norway)*

Dosimetry and fluence measurements with a new irradiation arrangement for neutron capture therapy of tumours in mice 179
*F. Pöller, W. Sauerwein and J. Rassow (F.R.G.)*

Interstitial irradiation for carcinoma of the tongue and floor of mouth: Royal Marsden Hospital Experience 1970–1986 183
*D. P. Dearnaley, C. Dardoufas, R. P. A'Hearn and J. M. Henk (U.K.)*

Maxillary sinus carcinomas: natural history and results of postoperative radiotherapy 193
*G. L. Jiang, K. Kian Ang, L. J. Peters, C. D. Wenst, M. J. Oswald and H. Goepfert (U.S.A.)*

Is it necessary to repeat quality control procedures for head and neck patients? 201
*C. Mitine, G. Leunens, J. Verstraete, N. Blanckaert, J. Van Dam, A. Dutreix and E. van der Schueren (Belgium)*

The effect of customized beam shaping on normal tissue complications in radiation therapy of parotid gland tumors 211
*R. Keus, P. Noach, R. de Boer and J. Lebesque (The Netherlands)*

**Letter to the Editors**
The factors to consider in decision-making concerning adjuvant therapy of cancer patients 218
*W. A. Bethune (U.S.A.)*

**Meeting Agenda** 219

**Courses** 219

**ESTRO Teaching Courses 1991** 221

**Announcements** 222

*Number 4, August 1991*



**Obituary** (N. J. McNally)

**Original Papers**
Clonal variation of DNA repair in a human glioma cell line 225
*S. Powell and T. J. McMillan (U.K.)*

Prognostic factors for local control in nasopharyngeal cancer (NPC): Analysis by multivariate proportional hazard models 233
*J. Itami, Y. Anzai, K. Nemoto, S. Yasuda, T. Aruga, K. Hatano, M. Itami, A. Mikata, K. Uno, T. Kaneko and N. Arimizu (Japan)*

Radiotherapy of midbrain and brainstem tumours in children 240
*A. Skowronska-Gardas (Poland)*

The effect on minimum tumor dose of restricting target-dose inhomogeneity in optimized three-dimensional treatment of lung cancer 245
*M. Langer, P. Kijewski, R. Brown and C. Ha (U.S.A.)*

Dose to superficial node for patients with head and neck cancer treated with 6 MV and $^{60}$Co photons 257
*J. C. H. Chu, L. R. Coia, D. Aziz and P. M. Stafford (U.S.A.)*

Modification of a three-dimensional treatment planning system for the use of multi-leaf collimators in conformation radiotherapy 261
*R. Boesecke, G. Becker, K. Alandt, O. Pastyr, J. Doll, W. Schlegel and W. J. Lorenz (F.R.G.)*

Effect of backscatter on cell survival for a clinical electron beam 269
*K. J. Weeks, D. J. Buchsbaum, V. H. Terry and R. K. Ten Haken (U.S.A.)*

A linear-quadratic model of cell survival considering both sublethal and potentially lethal radiation damage 273
*H. P. Rutz, P. A. Coucke and R. O. Mirimanoff (Switzerland)*

Renal damage in mice after sequential cisplatin and irradiation: the influence of prior irradiation on platinum elimination 277
*F. A. Stewart, H. Bartelink, G. B. van der Voet and F. A. de Wolff (The Netherlands)*

**Short Communication**
Evaluation of cell attachment matrix (CAM) coated plates for primary culture of human tumour biopsies
*P. Price, C. Bush, C. S. Parkins, T. J. McMillan, M. Robinson and G. G. Steel (U.K.)* 282

**Letter to the Editors**
Hypofractionation: Lessons from complications
*J. M. Henk (U.K.)* 286

**Announcements** 287

**Contents of Volume 21** 291

**Author Index** 295

**Subject Index** 298